

## Fault Line



**Tags**  
Fault line, Geology

### Identification\_Information:

#### Citation:

##### Citation\_Information:

Originator: John C. Reed, Jr.

Originator: Charles A. Bush

Publication\_Date: 200512

Title: Generalized Geologic Map of the Conterminous United States

Edition: 1.2

Geospatial\_Data\_Presentation\_Form: Map

#### Publication\_Information:

Publication\_Place: Denver, CO

Publisher: U.S. Geological Survey

Online\_Linkage: <<http://pubs.usgs.gov/atlas/geologic/>>

#### Description:

##### Abstract:

This data set contains boundaries and tags for major geologic units in the conterminous United States. In addition to the polygons representing the areal extent of geologic units, it identifies boundaries of metamorphic provinces, major faults, calderas, impact structures, and generalized limits of continental glaciation. The data depict the geology of the bedrock that lies at or near the land surface, but not the distribution of surficial materials such as soils, alluvium, and glacial deposits. This is a revised version of the April 2004 data set. This map complements the Generalized Geologic Map of Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands by Reed and Bush.

The data are generalized from a compilation prepared for use in the Geologic Map of North America, to be published in hard copy by the Geological Society of America and released as a digital file by the U.S. Geological Survey.

##### Purpose:

These data have been prepared with a degree of detail appropriate for viewing at a scale of 1:7,500,000. Because of the degree of generalization required (generalization based on compilation scale), the data are intended primarily for display and for regional and national analysis, rather than for more detailed analysis in specific areas.

No responsibility is assumed by the U.S. Geological Survey in the use of these data.

#### Supplemental\_Information:

The data set for the Geologic Map of the Conterminous United States consists of nine data layers. The data layers for faults and glacial limit lines are included in two different versions. The data are available as shapefiles, ArcInfo Export files, or graphics files (includes PDF, EPS, and AI formats). The data layers are distributed and should be used together. All the data layers were created as ARCINFO coverages and converted to other formats for distribution purposes. The following files are included:

> Calderl075 - Outlines of major calderas and impact structures

> Faultgl075 - Fault lines, with line decorations\*

> Faultl075 - Fault lines, without line decorations\*\*

> Geolgym075 - Geologic units, as polygons  
> Geotxt075 - Graphic representation of geologic unit text\*  
> Glacagl075 – Generalized glacial limit lines, with line decorations\*  
> Glacall075 – Generalized glacial limit lines, without line decorations\*\*  
> Impactx075 - Impact structure locations, as points  
> Metfcp075 - Areas and facies types of metamorphism, as polygons  
>  
>\* these files are not 'true' ArcInfo coverages; they are graphic  
> representations of symbols and text used on the geologic map. These  
> files should be used to produce appropriately symbolized graphics.  
> The decorations and text only appear correctly in Lambert Azimuthal  
> Equal Area projection. The parameters for the projection are:  
>     Projection                 Lambert Azimuthal Equal Area  
>     Datum                      NAD83  
>     Spheroid                  GRS1980  
>     Units                     Meters  
>     Radius of the sphere of reference 6370997  
>     Longitude of center projection -100  
>     Latitude of center of projection 45  
>  
>\*\* these files are the same as the files marked with \* but do not  
> include the line decorations. They are the 'true' fault and glacial  
> limit line ArcInfo coverages. These files should be used for data  
> analysis.

Also distributed with the data is the shadeset, geoshade.shd.

Any use of trade, product, or firm names is for descriptive purposes only  
and does not imply endorsement by the U.S. Government

Although this Federal Geographic Data Committee-compliant metadata  
file is intended to document the data set in nonproprietary form, some  
ArcInfo-specific terminology is included for clarity and expediency.

Time\_Period\_of\_Content:

Time\_Period\_Information:

Range\_of\_Dates/Times:

Beginning\_Date: 19980301

Ending\_Date: 19990601

Currentness\_Reference: Compilation date

Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: As needed

Spatial\_Domain:

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -124.73301687

East\_Bounding\_Coordinate: -66.95458457

North\_Bounding\_Coordinate: 50.00006074

South\_Bounding\_Coordinate: 24.51789429

Keywords:

Theme:

Theme\_Keyword\_Thesaurus: ISO 19115 Topic Category

Theme\_Keyword: geoscientificInformation

Theme:

Theme\_Keyword\_Thesaurus:

American Geological Institute (AGI) Glossary of Geology

Theme\_Keyword: Bedrock

Theme\_Keyword: Faults

Theme\_Keyword: Geologic History

Theme\_Keyword: Geologic Map

Theme\_Keyword: Geology

Theme\_Keyword: Glacial Limits

Theme\_Keyword: Impact Structures

Theme\_Keyword: Metamorphic Rocks

Theme\_Keyword: Plutonic Rocks

Theme\_Keyword: Regional Geology

Theme\_Keyword: Sedimentary Rocks

Theme\_Keyword: Tectonic History

Theme\_Keyword: Tectonics

Theme\_Keyword: Volcanic Rocks

Theme\_Keyword: Volcanoes

Place:

Place\_Keyword\_Thesaurus: U.S. Board on Geographic Names (BGN)  
Place\_Keyword: Conterminous United States  
Place\_Keyword: United States  
Place\_Keyword: USA  
Place\_Keyword: Alabama  
Place\_Keyword: Arizona  
Place\_Keyword: Arkansas  
Place\_Keyword: California  
Place\_Keyword: Colorado  
Place\_Keyword: Connecticut  
Place\_Keyword: Delaware  
Place\_Keyword: District of Columbia  
Place\_Keyword: Florida  
Place\_Keyword: Georgia  
Place\_Keyword: Idaho  
Place\_Keyword: Illinois  
Place\_Keyword: Indiana  
Place\_Keyword: Iowa  
Place\_Keyword: Kansas  
Place\_Keyword: Kentucky  
Place\_Keyword: Louisiana  
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Place\_Keyword: Maryland  
Place\_Keyword: Massachusetts  
Place\_Keyword: Michigan  
Place\_Keyword: Minnesota  
Place\_Keyword: Mississippi  
Place\_Keyword: Missouri  
Place\_Keyword: Montana  
Place\_Keyword: Nebraska  
Place\_Keyword: Nevada  
Place\_Keyword: New Hampshire  
Place\_Keyword: New Jersey  
Place\_Keyword: New Mexico  
Place\_Keyword: New York  
Place\_Keyword: North Carolina  
Place\_Keyword: North Dakota  
Place\_Keyword: Ohio  
Place\_Keyword: Oklahoma  
Place\_Keyword: Oregon  
Place\_Keyword: Pennsylvania  
Place\_Keyword: Rhode Island  
Place\_Keyword: South Carolina  
Place\_Keyword: South Dakota  
Place\_Keyword: Tennessee  
Place\_Keyword: Texas  
Place\_Keyword: Utah  
Place\_Keyword: Vermont  
Place\_Keyword: Virginia  
Place\_Keyword: Washington  
Place\_Keyword: West Virginia  
Place\_Keyword: Wisconsin  
Place\_Keyword: Wyoming

Access\_Constraints: None

Use\_Constraints:

None. Acknowledgment of the National Atlas of the United States of America and (or) the U.S. Geological Survey would be appreciated in products derived from these data.

Point\_of\_Contact:

Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person: John C. Reed, Jr.

Contact\_Organization: U.S. Geological Survey

Contact\_Address:

Address\_Type: Mailing

Address: Mail Stop 913, Box 25046

City: Lakewood

State\_or\_Province: CO

Postal\_Code: 80225

Country: USA

Contact\_Voice\_Telephone: 303-236-1276

Contact\_Facsimile\_Telephone: 303-236-0214

Contact\_Electronic\_Mail\_Address: jreed@usgs.gov

Browse\_Graphic:

Browse\_Graphic\_File\_Name:

<<http://pubs.usgs.gov/atlas/geologic/usgeoplot.pdf>>

Browse\_Graphic\_File\_Description: An image of the map of the United States.

Browse\_Graphic\_File\_Type: PDF

Browse\_Graphic:

Browse\_Graphic\_File\_Name:

<<http://pubs.usgs.gov/atlas/geologic/usgeoexp.pdf>>

Browse\_Graphic\_File\_Description: An image of the map explanation.

Browse\_Graphic\_File\_Type: PDF

Data\_Set\_Credit:

Nancy Shock, Digital Cartographer, U.S. Geological Survey, assisted in the digital compilation of this map.

Native\_Data\_Set\_Environment:

Windows\_NT, 5.0, Intel

ArclInfo version 9.1

Cross\_Reference:

Citation\_Information:

Originator: John C. Reed, Jr.

Originator: Charles A. Bush

Publication\_Date: 200512

Title:

Generalized Geologic Map of Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands

Edition: 1.0

Geospatial\_Data\_Presentation\_Form: Map

Publication\_Information:

Publication\_Place: Denver, CO

Publisher: U.S. Geological Survey

Online\_Linkage: <<http://pubs.usgs.gov/atlas/geologic>>

Data\_Quality\_Information:

Attribute\_Accuracy:

Attribute\_Accuracy\_Report:

The line attributes were manually checked by assigning unique line types to the values and then plotting the data. The plots were then compared to the source.

The polygon attributes were checked by visually comparing the final colored plots to maps at various larger scales.

Logical\_Consistency\_Report:

Polygon and node topology are present. All polygons are labeled and were tested by using the ArclInfo command LABELERRORS. All polygons were checked for closure, node errors, overshoots, undershoots, dangles and intersections using ArclInfo routines. The ArclInfo commands BUILD and CLEAN were run to ensure the topological consistency of the data set.

Completeness\_Report:

This data set contains map unit boundaries and codes for the 48 conterminous States. Boundaries and codes are included for geologic units, metamorphic facies, limits of glacial advance, impact structures, caldera boundaries, and major faults.

Positional\_Accuracy:

Horizontal\_Positional\_Accuracy:

Horizontal\_Positional\_Accuracy\_Report:

The accuracy of the original data was checked by comparing the digital files to several data sources. Both the line work and the polygon labels were checked against the source compilation.

Lineage:

Source\_Information:

Source\_Citation:

Citation\_Information:

Originator: Bally, A.W. (ed.)

Originator: Palmer, A.R. (ed.)

Publication\_Date: 1989

Title: The Geology of North America; an Overview

Series\_Information:

Series\_Name: The Geology of North America

Issue\_Identification: v. A, 619 p.

Publication\_Information:

Publication\_Place: Boulder, CO

Publisher: Geological Society of America  
Type\_of\_Source\_Media: Paper  
Source\_Time\_Period\_of\_Content:  
Time\_Period\_Information:  
Single\_Date/Time:  
Calendar\_Date: 1989  
Source\_Currentness\_Reference: Publication date  
Source\_Citation\_Abbreviation: DNAG-A  
Source\_Contribution: Line work and attributes.

Source\_Information:  
Source\_Citation:  
Citation\_Information:  
Originator: Buchfiel, B.C. (ed.)  
Originator: Lipman, P.W. (ed.)  
Originator: Zoback, M.L. (ed.)  
Publication\_Date: 1992  
Title: The Cordilleran Orogen, Conterminous U.S.  
Series\_Information:  
Series\_Name: The Geology of North America  
Issue\_Identification: v. G-3, 724 p.  
Geospatial\_Data\_Presentation\_Form: Map  
Publication\_Information:  
Publication\_Place: Boulder, CO  
Publisher: Geological Society of America  
Source\_Scale\_Denominator: 5,000,000  
Type\_of\_Source\_Media: Paper  
Source\_Time\_Period\_of\_Content:  
Time\_Period\_Information:  
Single\_Date/Time:  
Calendar\_Date: 1992  
Source\_Currentness\_Reference: Publication date  
Source\_Citation\_Abbreviation: DNAG-G  
Source\_Contribution: Line work and attributes.

Source\_Information:  
Source\_Citation:  
Citation\_Information:  
Originator: Hatcher, R.D. (ed.)  
Originator: Viele, G.W. (ed.)  
Originator: Thomas, W.A., (ed.)  
Publication\_Date: 1989  
Title: Appalachian-Ouachita Orogen in the United States  
Series\_Information:  
Series\_Name: The Geology of North America  
Issue\_Identification: v. F-2, 767 p.  
Geospatial\_Data\_Presentation\_Form: Map  
Publication\_Information:  
Publication\_Place: Boulder, CO  
Publisher: Geological Society of America  
Source\_Scale\_Denominator: 5,000,000  
Type\_of\_Source\_Media: Paper  
Source\_Time\_Period\_of\_Content:  
Time\_Period\_Information:  
Single\_Date/Time:  
Calendar\_Date: 1989  
Source\_Currentness\_Reference: Publication date  
Source\_Citation\_Abbreviation: DNAG-F  
Source\_Contribution: Line work and attributes.

Source\_Information:  
Source\_Citation:  
Citation\_Information:  
Originator: King, P.B.  
Originator: Beikman H.M.  
Publication\_Date: 1974  
Title:  
Geologic map of the United States (exclusive of Alaska and Hawaii)  
Geospatial\_Data\_Presentation\_Form: Map  
Publication\_Information:  
Publication\_Place: Reston, VA  
Publisher: U.S. Geological Survey

Source\_Scale\_Denominator: 2,500,000  
Type\_of\_Source\_Media: Paper  
Source\_Time\_Period\_of\_Content:  
Time\_Period\_Information:  
Single\_Date/Time:  
Calendar\_Date: 1974  
Source\_Currentness\_Reference: Publication date  
Source\_Citation\_Abbreviation: GMUS  
Source\_Contribution: Line work and attributes.

Source\_Information:  
Source\_Citation:  
Citation\_Information:  
Originator: Reed, J.C., Jr. (ed.)  
Originator: Bickford, M.E. (ed.)  
Originator: Houston, R.S. (ed.)  
Originator: Link, P.K. (ed.)  
Originator: Rankin, D.W. (ed.)  
Originator: Sims, P.K. (ed.)  
Originator: Van Schmus, W.R. (ed.)  
Publication\_Date: 1993  
Title: Precambrian: Conterminous U.S.  
Series\_Information:  
Series\_Name: The Geology of North America  
Issue\_Identification: v. C-2, 657 p.  
Geospatial\_Data\_Presentation\_Form: Map  
Publication\_Information:  
Publication\_Place: Boulder, CO  
Publisher: Geological Society of America  
Source\_Scale\_Denominator: 5,000,000  
Type\_of\_Source\_Media: Paper  
Source\_Time\_Period\_of\_Content:  
Time\_Period\_Information:  
Single\_Date/Time:  
Calendar\_Date: 1993  
Source\_Currentness\_Reference: Publication date  
Source\_Citation\_Abbreviation: DNAG-C  
Source\_Contribution: Line work and attributes.

Source\_Information:  
Source\_Citation:  
Citation\_Information:  
Originator: Salvador, A., ed  
Publication\_Date: 1991  
Title: The Gulf of Mexico Basin  
Series\_Information:  
Series\_Name: The Geology of North America  
Issue\_Identification: v. J, 568 p.  
Geospatial\_Data\_Presentation\_Form: Map  
Publication\_Information:  
Publication\_Place: Boulder, CO  
Publisher: Geological Society of America  
Type\_of\_Source\_Media: Paper  
Source\_Time\_Period\_of\_Content:  
Time\_Period\_Information:  
Single\_Date/Time:  
Calendar\_Date: 1991  
Source\_Currentness\_Reference: Publication date  
Source\_Citation\_Abbreviation: DNAG-J  
Source\_Contribution: Line work and attributes.

Source\_Information:  
Source\_Citation:  
Citation\_Information:  
Originator: Sheridan, R.E. (ed.)  
Originator: Grow, J.A. (ed.)  
Publication\_Date: 1988  
Title: The Atlantic Continental Margin, U.S.  
Series\_Information:  
Series\_Name: The Geology of North America  
Issue\_Identification: v. I-2, 632 p.  
Geospatial\_Data\_Presentation\_Form: Map

Publication\_Information:  
Publication\_Place: Boulder, CO  
Publisher: Geological Society of America  
Type\_of\_Source\_Media: Paper  
Source\_Time\_Period\_of\_Content:  
Time\_Period\_Information:  
Single\_Date/Time:  
Calendar\_Date: 1988  
Source\_Currentness\_Reference: Publication date  
Source\_Citation\_Abbreviation: DNAG-I  
Source\_Contribution: Line work and attributes.

Source\_Information:  
Source\_Citation:  
Citation\_Information:  
Originator: Silver, L.T. (ed.)  
Originator: Schultz, P.H. (ed.)  
Publication\_Date: 1982  
Title:  
Geological Implications of Impacts of Large Asteroids and Comets on  
the Earth: Geological Society of America Special Paper 190, 528 p.  
Geospatial\_Data\_Presentation\_Form: Map  
Publication\_Information:  
Publication\_Place: Boulder, CO  
Publisher: Geological Society of America  
Type\_of\_Source\_Media: Paper  
Source\_Time\_Period\_of\_Content:  
Time\_Period\_Information:  
Single\_Date/Time:  
Calendar\_Date: 1982  
Source\_Currentness\_Reference: Publication date  
Source\_Citation\_Abbreviation: SP190  
Source\_Contribution: Impact structures

Source\_Information:  
Source\_Citation:  
Citation\_Information:  
Originator: Sloss, L.L. (ed.)  
Publication\_Date: 1988  
Title: Sedimentary Cover, North American Craton, U.S  
Series\_Information:  
Series\_Name: The Geology of North America  
Issue\_Identification: v. D-2, 506 p.  
Geospatial\_Data\_Presentation\_Form: Map  
Publication\_Information:  
Publication\_Place: Boulder, CO  
Publisher: Geological Society of America  
Type\_of\_Source\_Media: Paper  
Source\_Time\_Period\_of\_Content:  
Time\_Period\_Information:  
Single\_Date/Time:  
Calendar\_Date: 1988  
Source\_Currentness\_Reference: Publication date  
Source\_Citation\_Abbreviation: DNAG-D  
Source\_Contribution: Line work and attributes.

Source\_Information:  
Source\_Citation:  
Citation\_Information:  
Originator: John C. Reed, Jr.  
Originator: Charles A. Bush  
Publication\_Date: 200404  
Title: Generalized Geologic Map of the Conterminous United States  
Edition: 1.2  
Geospatial\_Data\_Presentation\_Form: Map  
Publication\_Information:  
Publication\_Place: Denver, CO  
Publisher: U.S. Geological Survey  
Type\_of\_Source\_Media: Online  
Source\_Time\_Period\_of\_Content:  
Time\_Period\_Information:  
Range\_of\_Dates/Times:

Beginning\_Date: 19980301  
Ending\_Date: 19990601  
Source\_Currentness\_Reference: Compilation date  
Source\_Citation\_Abbreviation: ATLAS-GEO\_200404  
Source\_Contribution: Spatial and attribute information.

Process\_Step:

Process\_Description:

The geologic unit polygons (geolgy075), faults (faultl075), generalized glacial limit lines (glacall075), boundaries of metamorphic provinces (metfacp075), calderas (calderl075), and impact structures (impactx075) were created using the following procedures:

Data were compiled on scale-stable clear film at various scales. The lines and points were then digitized and georeferenced using the computer program GSMCAD, written by Van S. Williams, USGS. The program is available at no charge at <<http://geology.cr.usgs.gov/maps/software.html>>. Polygons, lines, and point features were attributed in GSMCAD.

Source\_Used\_Citation\_Abbreviation: DNAG-A  
Source\_Used\_Citation\_Abbreviation: DNAG-G  
Source\_Used\_Citation\_Abbreviation: DNAG-F  
Source\_Used\_Citation\_Abbreviation: GMUS  
Source\_Used\_Citation\_Abbreviation: DNAG-C  
Source\_Used\_Citation\_Abbreviation: DNAG-J  
Source\_Used\_Citation\_Abbreviation: DNAG-I  
Source\_Used\_Citation\_Abbreviation: SP190  
Source\_Used\_Citation\_Abbreviation: DNAG-D

Process\_Date: 1999

Process\_Contact:

Contact\_Information:

Contact\_Person\_Primary:  
Contact\_Person: John C. Reed, Jr.  
Contact\_Organization: U.S. Geological Survey  
Contact\_Address:  
Address\_Type: Mailing  
Address: Mail Stop 913, Box 25046, Denver Federal Center  
City: Lakewood  
State\_or\_Province: CO  
Postal\_Code: 80225  
Country: USA  
Contact\_Voice\_Telephone: 303-236-1276  
Contact\_Facsimile\_Telephone: 303-236-0214  
Contact\_Electronic\_Mail\_Address: jreed@usgs.gov

Process\_Step:

Process\_Description:

The data were exported from GSMCAD into ArcInfo Generate format, and were imported into ArcInfo coverages using AML routines provided with GSMCAD.

Process\_Date: 1999

Process\_Contact:

Contact\_Information:  
Contact\_Person\_Primary:  
Contact\_Person: John C. Reed, Jr.  
Contact\_Organization: U.S. Geological Survey  
Contact\_Address:  
Address\_Type: Mailing  
Address: Mail Stop 913, Box 25046, Denver Federal Center  
City: Lakewood  
State\_or\_Province: CO  
Postal\_Code: 80225  
Country: USA  
Contact\_Voice\_Telephone: 303-236-1276  
Contact\_Facsimile\_Telephone: 303-236-0214  
Contact\_Electronic\_Mail\_Address: jreed@usgs.gov

Process\_Step:

Process\_Description:

Errors in polygon labeling were checked using the LABELERROR routine in ARCPLOT. Node errors were checked using ARCEDIT routines. Colored plots were made to make final checks of the overall coverages.

Process\_Date: 1999  
Process\_Contact:  
Contact\_Information:  
Contact\_Person\_Primary:  
Contact\_Person: Charles A. Bush  
Contact\_Organization: U.S. Geological Survey  
Contact\_Address:  
Address\_Type: Mailing  
Address: Mail Stop 913, Box 25046, Denver Federal Center  
City: Lakewood  
State\_or\_Province: CO  
Postal\_Code: 80225  
Country: USA  
Contact\_Voice\_Telephone: 303-236-4723  
Contact\_Facsimile\_Telephone: 303-236-0214  
Contact\_Electronic\_Mail\_Address: cbush@usgs.gov

Process\_Step:  
Process\_Description:  
Supplementary graphical coverages were created for the faults (faultgl075) and generalized glacial limit lines (glacagl075). These are the same as faultl075 and glacall075 except decoration lines have been added for display purposes. Another coverage was created containing arcs that represent text labels for the polygons (geotxtl075). This is also for display purposes.  
Process\_Date: 1999  
Process\_Contact:  
Contact\_Information:  
Contact\_Person\_Primary:  
Contact\_Person: Charles A. Bush  
Contact\_Organization: U.S. Geological Survey  
Contact\_Address:  
Address\_Type: Mailing  
Address: Mail Stop 913, Box 25046, Denver Federal Center  
City: Lakewood  
State\_or\_Province: CO  
Postal\_Code: 80225  
Country: USA  
Contact\_Voice\_Telephone: 303-236-4723  
Contact\_Facsimile\_Telephone: 303-236-0214  
Contact\_Electronic\_Mail\_Address: cbush@usgs.gov

Process\_Step:  
Process\_Description:  
The glacial limit attribute was changed in the file containing the generalized glacial limit lines with line decorations (glacagl075) and in the file containing generalized glacial limit lines without line decorations (glacall075). Wisconsin Glacial Limit Line was changed to Wisconsin Glacial Limit and Pre-Wisconsin Glacial Limit Line was changed to Pre-Wisconsin Glacial Limit.  
Process\_Date: 20040318  
Source\_Produced\_Citation\_Abbreviation: ATLAS-GEO\_200404  
Process\_Contact:  
Contact\_Information:  
Contact\_Person\_Primary:  
Contact\_Person: Charles A. Bush  
Contact\_Organization: U.S. Geological Survey  
Contact\_Address:  
Address\_Type: Mailing  
Address: Mail Stop 913, Box 25046, Denver Federal Center  
City: Lakewood  
State\_or\_Province: CO  
Postal\_Code: 80225  
Country: USA  
Contact\_Voice\_Telephone: 303-236-4723  
Contact\_Facsimile\_Telephone: 303-236-0214  
Contact\_Electronic\_Mail\_Address: cbush@usgs.gov

Process\_Step:  
Process\_Description:  
Attributes for map units were revised to use age terms ("Early," "Middle," and "Late"), to modify Proterozoic units and position terms

("lower," "middle," and "upper"), and to modify Paleozoic and Mesozoic units.

Source\_Used\_Citation\_Abbreviation: ATLAS-GEO\_200404

Process\_Date: 20050426

Process\_Contact:

Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person: Charles A. Bush

Contact\_Organization: U.S. Geological Survey

Contact\_Address:

Address\_Type: Mailing

Address: Mail Stop 913, Box 25046, Denver Federal Center

City: Lakewood

State\_or\_Province: CO

Postal\_Code: 80225

Country: USA

Contact\_Voice\_Telephone: 303-236-4723

Contact\_Facsimile\_Telephone: 303-236-0214

Contact\_Electronic\_Mail\_Address: cbush@usgs.gov

Spatial\_Data\_Organization\_Information:

Direct\_Spatial\_Reference\_Method: Vector

Point\_and\_Vector\_Object\_Information:

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: String

Point\_and\_Vector\_Object\_Count: 69825

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: String

Point\_and\_Vector\_Object\_Count: 1259

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: String

Point\_and\_Vector\_Object\_Count: 1098

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: String

Point\_and\_Vector\_Object\_Count: 91

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: String

Point\_and\_Vector\_Object\_Count: 1206

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: GT-polygon composed of chains

Point\_and\_Vector\_Object\_Count: 121

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: String

Point\_and\_Vector\_Object\_Count: 63

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: Point

Point\_and\_Vector\_Object\_Count: 32

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: GT-polygon composed of chains

Point\_and\_Vector\_Object\_Count: 2777

SDTS\_Terms\_Description:

SDTS\_Point\_and\_Vector\_Object\_Type: String

Point\_and\_Vector\_Object\_Count: 10599

Spatial\_Reference\_Information:

Horizontal\_Coordinate\_System\_Definition:

Geographic:

Latitude\_Resolution: 0.0000094433083

Longitude\_Resolution: 0.0000094433083

Geographic\_Coordinate\_Units: Decimal degrees

Geodetic\_Model:

Horizontal\_Datum\_Name: North American Datum of 1983

Ellipsoid\_Name: GRS1980

Semi-major\_Axis: 6378137.0

Denominator\_of\_Flattening\_Ratio: 298.257222

Entity\_and\_Attribute\_Information:

Detailed\_Description:

Entity\_Type:

Entity\_Type\_Label:

Fault, with line decorations (described by faultgl075.aat or  
faultgl.dbf)

**Entity\_Type\_Definition:**

A fault is a fracture or fracture zone in the Earth's crust along which rocks on one side have moved significantly with respect to those on the other side. This data set includes both the faults and the line decorations.

**Entity\_Type\_Definition\_Source:** U.S. Geological Survey

**Attribute:**

**Attribute\_Label:** Shape

**Attribute\_Definition:** The representation of the entity in the data.

**Attribute\_Definition\_Source:** U.S. Geological Survey

**Attribute\_Domain\_Values:**

**Enumerated\_Domain:**

**Enumerated\_Domain\_Value:** Polyline

**Enumerated\_Domain\_Value\_Definition:**

1-dimensional element that may or may not surround a 2-dimensional element.

**Enumerated\_Domain\_Value\_Definition\_Source:** ESRI GIS software

**Attribute:**

**Attribute\_Label:** Fnode#

**Attribute\_Definition:** Internal sequence number of the from-node.

**Attribute\_Definition\_Source:** U.S. Geological Survey

**Attribute\_Domain\_Values:**

**Range\_Domain:**

**Range\_Domain\_Minimum:** 2

**Range\_Domain\_Maximum:** 50400

**Attribute:**

**Attribute\_Label:** Tnode#

**Attribute\_Definition:** Internal sequence number of the to-node.

**Attribute\_Definition\_Source:** U.S. Geological Survey

**Attribute\_Domain\_Values:**

**Range\_Domain:**

**Range\_Domain\_Minimum:** 1

**Range\_Domain\_Maximum:** 50401

**Attribute:**

**Attribute\_Label:** Lpoly#

**Attribute\_Definition:** Internal sequence number of the left polygon.

**Attribute\_Definition\_Source:** U.S. Geological Survey

**Attribute\_Domain\_Values:**

**Range\_Domain:**

**Range\_Domain\_Minimum:** -1

**Range\_Domain\_Maximum:** 0

**Attribute:**

**Attribute\_Label:** Rpoly#

**Attribute\_Definition:** Internal sequence number of the right polygon.

**Attribute\_Definition\_Source:** U.S. Geological Survey

**Attribute\_Domain\_Values:**

**Range\_Domain:**

**Range\_Domain\_Minimum:** -1

**Range\_Domain\_Maximum:** 0

**Attribute:**

**Attribute\_Label:** Length

**Attribute\_Definition:**

The length of the line in coverage units. In the distributed file, coverage units represent decimal degrees.

**Attribute\_Definition\_Source:** U.S. Geological Survey

**Attribute\_Domain\_Values:**

**Range\_Domain:**

**Range\_Domain\_Minimum:** 150.188

**Range\_Domain\_Maximum:** 430125.400

**Attribute:**

**Attribute\_Label:** Faultgl075# or Faultgl\_

**Attribute\_Definition:** Internal feature number.

**Attribute\_Definition\_Source:** U.S. Geological Survey

**Attribute\_Domain\_Values:**

**Range\_Domain:**

**Range\_Domain\_Minimum:** 1

**Range\_Domain\_Maximum:** 69825

**Attribute:**

**Attribute\_Label:** Faultgl075-id or Faultgl\_id

**Attribute\_Definition:** User-assigned feature number.

**Attribute\_Definition\_Source:** U.S. Geological Survey

**Attribute\_Domain\_Values:**

Range\_Domain:  
Range\_Domain\_Minimum: 4  
Range\_Domain\_Maximum: 71912

Attribute:  
Attribute\_Label: Code  
Attribute\_Definition: The type of fault represented in the data set.  
Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

    Enumerated\_Domain:  
        Enumerated\_Domain\_Value: 12  
        Enumerated\_Domain\_Value\_Definition: Fault  
        Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

    Enumerated\_Domain:  
        Enumerated\_Domain\_Value: 13  
        Enumerated\_Domain\_Value\_Definition: Thrust fault  
        Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

    Enumerated\_Domain:  
        Enumerated\_Domain\_Value: 14  
        Enumerated\_Domain\_Value\_Definition: Normal fault  
        Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

    Enumerated\_Domain:  
        Enumerated\_Domain\_Value: 16  
        Enumerated\_Domain\_Value\_Definition: Low angle detachment fault  
        Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

    Enumerated\_Domain:  
        Enumerated\_Domain\_Value: 17  
        Enumerated\_Domain\_Value\_Definition: Inferred fault  
        Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Attribute:  
Attribute\_Label: Text  
Attribute\_Definition: The type of fault.  
Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

    Enumerated\_Domain:  
        Enumerated\_Domain\_Value: Fault  
        Enumerated\_Domain\_Value\_Definition:  
            A fault is a fracture or fracture zone in the Earth's crust along which rocks on one side have moved significantly with respect to those on the other side.

        Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

    Enumerated\_Domain:  
        Enumerated\_Domain\_Value: Thrust Fault  
        Enumerated\_Domain\_Value\_Definition:  
            A thrust fault is a flat or gently inclined fault (less than 45 degrees) along which the rocks above have moved relative to the rocks below.

        Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

    Enumerated\_Domain:  
        Enumerated\_Domain\_Value: Normal Fault  
        Enumerated\_Domain\_Value\_Definition:  
            A normal fault is a steeply inclined fault (usually more than 45 degrees) where rocks above the fault have moved down relative to those below the fault.

        Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

    Enumerated\_Domain:  
        Enumerated\_Domain\_Value: Low Angle Detachment Fault  
        Enumerated\_Domain\_Value\_Definition:  
            A large, shallowly-inclined normal fault formed during extension of the Earth's crust.

        Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

    Enumerated\_Domain:  
        Enumerated\_Domain\_Value: Inferred Fault  
        Enumerated\_Domain\_Value\_Definition:  
            The existence and location of the fault are inferred from indirect evidence.

        Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Detailed\_Description:

Entity\_Type:  
Entity\_Type\_Label:  
Fault, without line decorations (described by faultl075.aat or faultl.dbf)

**Entity\_Type\_Definition:**  
A fault is a fracture or fracture zone in the Earth's crust along which rocks on one side have moved significantly with respect to those on the other side.

**Entity\_Type\_Definition\_Source:** U.S. Geological Survey

**Attribute:**

Attribute\_Label: Shape

Attribute\_Definition: The representation of the entity in the data.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: Polyline

Enumerated\_Domain\_Value\_Definition:

1-dimensional element that may or may not surround a 2-dimensional element.

Enumerated\_Domain\_Value\_Definition\_Source: ESRI GIS software

**Attribute:**

Attribute\_Label: Fnode#

Attribute\_Definition: Internal sequence number of the from-node.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 0

Range\_Domain\_Maximum: 1

**Attribute:**

Attribute\_Label: Tnode#

Attribute\_Definition: Internal sequence number of the to-node.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 0

Range\_Domain\_Maximum: 4

**Attribute:**

Attribute\_Label: Lpoly#

Attribute\_Definition: Internal sequence number of the left polygon.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 0

Range\_Domain\_Maximum: 0

**Attribute:**

Attribute\_Label: Rpoly#

Attribute\_Definition: Internal sequence number of the right polygon.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 0

Range\_Domain\_Maximum: 0

**Attribute:**

Attribute\_Label: Length

Attribute\_Definition:

The length of the line in coverage units. In the distributed file, coverage units represent decimal degrees.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 0.10873

Range\_Domain\_Maximum: 342987.14268

**Attribute:**

Attribute\_Label: Faultl075# or Faultl\_

Attribute\_Definition: Internal feature number.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 1

Range\_Domain\_Maximum: 1259

**Attribute:**

Attribute\_Label: Faultl075-id or Faultl\_id

Attribute\_Definition: User-assigned feature number.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 83

Range\_Domain\_Maximum: 1603

Attribute:

Attribute\_Label: Code

Attribute\_Definition: The type of fault represented in the data set.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: 12

Enumerated\_Domain\_Value\_Definition: Fault

Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Enumerated\_Domain:

Enumerated\_Domain\_Value: 13

Enumerated\_Domain\_Value\_Definition: Thrust fault

Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Enumerated\_Domain:

Enumerated\_Domain\_Value: 14

Enumerated\_Domain\_Value\_Definition: Normal fault

Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Enumerated\_Domain:

Enumerated\_Domain\_Value: 16

Enumerated\_Domain\_Value\_Definition: Low angle detachment fault

Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Enumerated\_Domain:

Enumerated\_Domain\_Value: 17

Enumerated\_Domain\_Value\_Definition: Inferred fault

Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Attribute:

Attribute\_Label: Text

Attribute\_Definition: The type of fault.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: Fault

Enumerated\_Domain\_Value\_Definition:

A fault is a fracture or fracture zone in the Earth's crust along which rocks on one side have moved significantly with respect to those on the other side.

Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Enumerated\_Domain:

Enumerated\_Domain\_Value: Thrust Fault

Enumerated\_Domain\_Value\_Definition:

A thrust fault is a flat or gently inclined fault (less than 45 degrees) along which the rocks above have moved relative to the rocks below.

Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Enumerated\_Domain:

Enumerated\_Domain\_Value: Normal Fault

Enumerated\_Domain\_Value\_Definition:

A normal fault is a steeply inclined fault (usually more than 45 degrees) where rocks above the fault have moved down relative to those below the fault.

Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Enumerated\_Domain:

Enumerated\_Domain\_Value: Low Angle Detachment Fault

Enumerated\_Domain\_Value\_Definition:

A large, shallowly-inclined normal fault formed during extension of the Earth's crust.

Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Enumerated\_Domain:

Enumerated\_Domain\_Value: Inferred Fault

Enumerated\_Domain\_Value\_Definition:

The existence and location of the fault are inferred from indirect evidence.

Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Detailed\_Description:

Entity\_Type:

Entity\_Type\_Label:

Generalized glacial limit line, with line decorations (described by glacagl075.aat or glacagl.dbf)

Entity\_Type\_Definition:

A line showing the generalized southern limit of Wisconsin and pre-Wisconsin glaciation in the United States. For display purposes, tics are included along the line for line decorations.

Entity\_Type\_Definition\_Source: U.S. Geological Survey

Attribute:

Attribute\_Label: Shape

Attribute\_Definition: The representation of the entity in the data.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: Polyline

Enumerated\_Domain\_Value\_Definition:

1-dimensional element that may or may not surround a

2-dimensional element.

Enumerated\_Domain\_Value\_Definition\_Source: ESRI GIS software

Attribute:

Attribute\_Label: Fnode#

Attribute\_Definition: Internal sequence number of the from-node.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 0

Range\_Domain\_Maximum: 2140

Attribute:

Attribute\_Label: Tnode#

Attribute\_Definition: Internal sequence number of the to-node.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 0

Range\_Domain\_Maximum: 2141

Attribute:

Attribute\_Label: Lpoly#

Attribute\_Definition: Internal sequence number of the left polygon.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 0

Range\_Domain\_Maximum: 0

Attribute:

Attribute\_Label: Rpoly#

Attribute\_Definition: Internal sequence number of the right polygon.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 0

Range\_Domain\_Maximum: 0

Attribute:

Attribute\_Label: Length

Attribute\_Definition:

The length of the line in coverage units. In the distributed file,

coverage units represent decimal degrees.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 8.990

Range\_Domain\_Maximum: 1291296.000

Attribute:

Attribute\_Label: Glacagl075# or Glacagl\_

Attribute\_Definition: Internal feature number.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 1

Range\_Domain\_Maximum: 1098

Attribute:

Attribute\_Label: Glacagl075-id (Included in Export format file only.)

Attribute\_Definition: User-assigned feature number.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 1

Range\_Domain\_Maximum: 1074  
Attribute:  
Attribute\_Label: Code  
Attribute\_Definition: Values representing the limits of glacial advance at two selected times.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Enumerated\_Domain:  
    Enumerated\_Domain\_Value: 1  
    Enumerated\_Domain\_Value\_Definition: Wisconsin glacial limit.  
    Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey  
Enumerated\_Domain:  
    Enumerated\_Domain\_Value: 2  
    Enumerated\_Domain\_Value\_Definition: Pre-Wisconsin glacial limit.  
    Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey  
Attribute:  
Attribute\_Label: Glacial\_li  
Attribute\_Definition: The type of glacial limit line.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Enumerated\_Domain:  
    Enumerated\_Domain\_Value: Wisconsin Glacial Limit  
    Enumerated\_Domain\_Value\_Definition:  
        A generalized line showing the maximum extent of glaciation during  
        Wisconsin time, 35,000 to 11,150 years ago.  
    Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey  
Enumerated\_Domain:  
    Enumerated\_Domain\_Value: Pre-Wisconsin Glacial Limit  
    Enumerated\_Domain\_Value\_Definition:  
        A generalized line showing the maximum extent of glaciation prior to  
        Wisconsin time, earlier than 11,150 years ago.  
    Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Detailed\_Description:  
Entity\_Type:  
Entity\_Type\_Label: Glacial limit line, without line decorations (described by  
glacall075.aat or glacall.dbf)  
Entity\_Type\_Definition:  
A line showing the generalized southern limit of Wisconsin and pre-  
Wisconsin glaciation in the United States.  
Entity\_Type\_Definition\_Source: U.S. Geological Survey  
Attribute:  
Attribute\_Label: Shape  
Attribute\_Definition: The representation of the entity in the data.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Enumerated\_Domain:  
    Enumerated\_Domain\_Value: Polyline  
    Enumerated\_Domain\_Value\_Definition:  
        1-dimensional element that may or may not surround a  
        2-dimensional element.  
    Enumerated\_Domain\_Value\_Definition\_Source: ESRI GIS software

Attribute:  
Attribute\_Label: Fnode#  
Attribute\_Definition: Internal sequence number of the from-node.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Range\_Domain:  
    Range\_Domain\_Minimum: 0  
    Range\_Domain\_Maximum: 0  
Attribute:  
Attribute\_Label: Tnode#  
Attribute\_Definition: Internal sequence number of the to-node.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Range\_Domain:  
    Range\_Domain\_Minimum: 0  
    Range\_Domain\_Maximum: 0  
Attribute:  
Attribute\_Label: Lpoly#  
Attribute\_Definition: Internal sequence number of the left polygon.

Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Range\_Domain:  
Range\_Domain\_Minimum: 0  
Range\_Domain\_Maximum: 0

Attribute:  
Attribute\_Label: Rpoly#  
Attribute\_Definition: Internal sequence number of the right polygon.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Range\_Domain:  
Range\_Domain\_Minimum: 0  
Range\_Domain\_Maximum: 0

Attribute:  
Attribute\_Label: Length  
Attribute\_Definition:  
The length of the line in coverage units. In the distributed file, coverage units represent decimal degrees.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Range\_Domain:  
Range\_Domain\_Minimum: 5125.62160  
Range\_Domain\_Maximum: 1291295.86094

Attribute:  
Attribute\_Label: Glacall075# or Glacall075  
Attribute\_Definition: Internal feature number.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Range\_Domain:  
Range\_Domain\_Minimum: 1  
Range\_Domain\_Maximum: 91

Attribute:  
Attribute\_Label: Glacall075-id (Included in Export format file only.)  
Attribute\_Definition: User-assigned feature number.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Range\_Domain:  
Range\_Domain\_Minimum: 1  
Range\_Domain\_Maximum: 91

Attribute:  
Attribute\_Label: Code  
Attribute\_Definition:  
Values representing the limits of glacial advance at two selected times.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Enumerated\_Domain:  
Enumerated\_Domain\_Value: 1  
Enumerated\_Domain\_Value\_Definition: Wisconsin glacial limit.  
Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey  
Enumerated\_Domain:  
Enumerated\_Domain\_Value: 2  
Enumerated\_Domain\_Value\_Definition: Pre-Wisconsin glacial limit.  
Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Attribute:  
Attribute\_Label: Glacial\_li  
Attribute\_Definition: The type of glacial limit line.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Enumerated\_Domain:  
Enumerated\_Domain\_Value: Wisconsin Glacial Limit  
Enumerated\_Domain\_Value\_Definition:  
A generalized line showing the maximum extent of glaciation during Wisconsin time, 35,000 to 11,150 years ago.  
Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey  
Enumerated\_Domain:  
Enumerated\_Domain\_Value: Pre-Wisconsin Glacial Limit  
Enumerated\_Domain\_Value\_Definition:  
A generalized line showing the maximum extent of glaciation prior to Wisconsin time, earlier than 11,150 years ago.  
Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Detailed\_Description:

Entity\_Type:  
Entity\_Type\_Label:  
Text labels (described by geotxtl075.aat or geotxtl.dbf)  
Entity\_Type\_Definition:  
Text labels for the geology coverage, represented as lines. Standard  
geologic symbols are included.  
Entity\_Type\_Definition\_Source: U.S. Geological Survey

Attribute:  
Attribute\_Label: Shape  
Attribute\_Definition: The representation of the entity in the data.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Enumerated\_Domain:  
Enumerated\_Domain\_Value: Polyline  
Enumerated\_Domain\_Value\_Definition:  
1-dimensional element that may or may not surround a  
2-dimensional element.  
Enumerated\_Domain\_Value\_Definition\_Source: ESRI GIS software

Attribute:  
Attribute\_Label: Fnode#  
Attribute\_Definition: Internal sequence number of the from-node.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Range\_Domain:  
Range\_Domain\_Minimum: 0  
Range\_Domain\_Maximum: 131

Attribute:  
Attribute\_Label: Tnode#  
Attribute\_Definition: Internal sequence number of the to-node.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Range\_Domain:  
Range\_Domain\_Minimum: 0  
Range\_Domain\_Maximum: 132

Attribute:  
Attribute\_Label: Lpoly#  
Attribute\_Definition: Internal sequence number of the left polygon.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Range\_Domain:  
Range\_Domain\_Minimum: 0  
Range\_Domain\_Maximum: 0

Attribute:  
Attribute\_Label: Rpoly#  
Attribute\_Definition: Internal sequence number of the right polygon.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Range\_Domain:  
Range\_Domain\_Minimum: 0  
Range\_Domain\_Maximum: 0

Attribute:  
Attribute\_Label: Length  
Attribute\_Definition:  
The length of the line in coverage units. In the distributed file,  
coverage units represent decimal degrees.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Range\_Domain:  
Range\_Domain\_Minimum: 2373.982  
Range\_Domain\_Maximum: 117346.700

Attribute:  
Attribute\_Label: Geotxtl075# or Geotxtl\_  
Attribute\_Definition: Internal feature number.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Range\_Domain:  
Range\_Domain\_Minimum: 1  
Range\_Domain\_Maximum: 1206

Attribute:  
Attribute\_Label: Geotxtl075-id or Geotxtl\_id  
Attribute\_Definition: User-assigned feature number.  
Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:  
Range\_Domain:  
    Range\_Domain\_Minimum: 1  
    Range\_Domain\_Maximum: 1105

Detailed\_Description:  
Entity\_Type:  
    Entity\_Type\_Label:  
        Areas of amphibolite or blueschist facies metamorphism (described by metfacp075.pat or metfacp.dbf).  
Entity\_Type\_Definition:  
    Metamorphism is the alteration of texture or composition in a rock by pressure, heat, or water.  
Entity\_Type\_Definition\_Source: U.S. Geological Survey

Attribute:  
    Attribute\_Label: Shape  
    Attribute\_Definition: The representation of the entity in the data.  
    Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:  
    Enumerated\_Domain:  
        Enumerated\_Domain\_Value: Polygon  
        Enumerated\_Domain\_Value\_Definition: 2-dimensional element.  
        Enumerated\_Domain\_Value\_Definition\_Source: ESRI GIS software

Attribute:  
    Attribute\_Label: Area  
    Attribute\_Definition:  
        The size of the shape in square coverage units. In the distributed file, coverage units represent square decimal degrees.  
    Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:  
    Range\_Domain:  
        Range\_Domain\_Minimum: 0.000  
        Range\_Domain\_Maximum: 15.256

Attribute:  
    Attribute\_Label: Perimeter  
    Attribute\_Definition:  
        The perimeter of the shape in coverage units. In the distributed file, coverage units represent decimal degrees.  
    Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:  
    Range\_Domain:  
        Range\_Domain\_Minimum: 0.089  
        Range\_Domain\_Maximum: 55.468

Attribute:  
    Attribute\_Label: Metfacp075# or Metfacpc\_  
    Attribute\_Definition: Internal feature number.  
    Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:  
    Range\_Domain:  
        Range\_Domain\_Minimum: 2  
        Range\_Domain\_Maximum: 122

Attribute:  
    Attribute\_Label: Metfacp075-id or Metfacpc\_i  
    Attribute\_Definition: User-assigned feature number.  
    Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:  
    Range\_Domain:  
        Range\_Domain\_Minimum: 1  
        Range\_Domain\_Maximum: 122

Attribute:  
    Attribute\_Label: Metam-fac  
    Attribute\_Definition: The type of facies metamorphism.  
    Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:  
    Enumerated\_Domain:  
        Enumerated\_Domain\_Value: <blank>  
        Enumerated\_Domain\_Value\_Definition:  
            An area where metamorphism is not mapped.  
        Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

    Enumerated\_Domain:  
        Enumerated\_Domain\_Value: Amphibolite Facies Metamorphism  
        Enumerated\_Domain\_Value\_Definition:

A metamorphic mineral assemblage formed under medium temperature and medium to high pressure.

Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Enumerated\_Domain:

Enumerated\_Domain\_Value: Blueschist Facies Metamorphism

Enumerated\_Domain\_Value\_Definition:

A metamorphic mineral assemblage formed under low temperature and high pressure.

Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Detailed\_Description:

Entity\_Type:

Entity\_Type\_Label:

Calderas and impact structures (described by calderl075.aat or calderl.dbf)

Entity\_Type\_Definition:

Outlines of major calderas and impact structures. A caldera is a large, generally circular depression at the summit of a volcano formed when magma is withdrawn or erupted from a shallow underground magma reservoir. An impact structure is a crater formed by the impact of a meteoroid, asteroid, or comet with the Earth.

Entity\_Type\_Definition\_Source: U.S. Geological Survey

Attribute:

Attribute\_Label: Shape

Attribute\_Definition: The representation of the entity in the data.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: Polyline

Enumerated\_Domain\_Value\_Definition:

1-dimensional element that may or may not surround a 2-dimensional element.

Enumerated\_Domain\_Value\_Definition\_Source: ESRI GIS software

Attribute:

Attribute\_Label: Fnode#

Attribute\_Definition: Internal sequence number of the from-node.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 0

Range\_Domain\_Maximum: 47

Attribute:

Attribute\_Label: Tnode#

Attribute\_Definition: Internal sequence number of the to-node.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 0

Range\_Domain\_Maximum: 47

Attribute:

Attribute\_Label: Lpoly#

Attribute\_Definition: Internal sequence number of the left polygon.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 0

Range\_Domain\_Maximum: 0

Attribute:

Attribute\_Label: Rpoly#

Attribute\_Definition: Internal sequence number of the right polygon.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 0

Range\_Domain\_Maximum: 0

Attribute:

Attribute\_Label: Length

Attribute\_Definition:

The length of the line in coverage units. In the distributed file, coverage units represent decimal degrees.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:  
Range\_Domain\_Minimum: 1600.429  
Range\_Domain\_Maximum: 302426.800

Attribute:  
Attribute\_Label: Calderl075# or Calderl\_  
Attribute\_Definition: Internal feature number.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Range\_Domain:  
Range\_Domain\_Minimum: 1  
Range\_Domain\_Maximum: 63

Attribute:  
Attribute\_Label: Calderl075-id or Calderl\_id  
Attribute\_Definition: User-assigned feature number.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Range\_Domain:  
Range\_Domain\_Minimum: 104  
Range\_Domain\_Maximum: 49926

Attribute:  
Attribute\_Label: Code  
Attribute\_Definition:  
The type of caldera boundary or impact structure extent.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Enumerated\_Domain:  
Enumerated\_Domain\_Value: 17  
Enumerated\_Domain\_Value\_Definition: Caldera Boundary  
Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Enumerated\_Domain:  
Enumerated\_Domain\_Value: 18  
Enumerated\_Domain\_Value\_Definition: Caldera Boundary, uncertain  
Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Enumerated\_Domain:  
Enumerated\_Domain\_Value: 19  
Enumerated\_Domain\_Value\_Definition:  
Extent of large, buried impact structure.  
Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Attribute:  
Attribute\_Label: Structure\_  
Attribute\_Definition: The type of structure  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Enumerated\_Domain:  
Enumerated\_Domain\_Value: Caldera Boundary  
Enumerated\_Domain\_Value\_Definition:  
The areal extent of the caldera at the surface.  
Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Enumerated\_Domain:  
Enumerated\_Domain\_Value: Caldera Boundary, uncertain  
Enumerated\_Domain\_Value\_Definition:  
The estimated areal extent of the caldera.  
Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Enumerated\_Domain:  
Enumerated\_Domain\_Value: Extent of large, buried impact structure  
Enumerated\_Domain\_Value\_Definition:  
The estimated extent of the impact structure.  
Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Detailed\_Description:

Entity\_Type:  
Entity\_Type\_Label:  
Impact site (described by impactx075.pat or impactx.dbf)  
Entity\_Type\_Definition:  
The center of an impact structure. An impact structure is a crater formed by the impact of a meteoroid, asteroid, or comet with the Earth.  
Entity\_Type\_Definition\_Source: U.S. Geological Survey

Attribute:  
Attribute\_Label: Shape  
Attribute\_Definition: The representation of the entity in the data.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:

Enumerated\_Domain:  
  Enumerated\_Domain\_Value: Point  
  Enumerated\_Domain\_Value\_Definition: 0-dimensional element.  
  Enumerated\_Domain\_Value\_Definition\_Source: ESRI GIS software

Attribute:  
  Attribute\_Label: Area  
  Attribute\_Definition:  
    The size of the shape in square coverage units. In the distributed file, coverage units represent square decimal degrees.  
  Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:  
  Range\_Domain:  
    Range\_Domain\_Minimum: 0.000  
    Range\_Domain\_Maximum: 0.000

Attribute:  
  Attribute\_Label: Perimeter  
  Attribute\_Definition:  
    The perimeter of shape in coverage units. In the distributed file, coverage units represent decimal degrees.  
  Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:  
  Range\_Domain:  
    Range\_Domain\_Minimum: 0.000  
    Range\_Domain\_Maximum: 0.000

Attribute:  
  Attribute\_Label: Impactx075# or Impactx\_  
  Attribute\_Definition: Internal feature number.  
  Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:  
  Range\_Domain:  
    Range\_Domain\_Minimum: 1  
    Range\_Domain\_Maximum: 32

Attribute:  
  Attribute\_Label: Impactx075-id or Impactx\_id  
  Attribute\_Definition: User-assigned feature number.  
  Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:  
  Range\_Domain:  
    Range\_Domain\_Minimum: 47  
    Range\_Domain\_Maximum: 78

Attribute:  
  Attribute\_Label: Structure\_  
  Attribute\_Definition:  
    Indicates whether a site is an impact structure or a suspected impact structure.  
  Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:  
  Enumerated\_Domain:  
    Enumerated\_Domain\_Value: Impact Structure  
    Enumerated\_Domain\_Value\_Definition:  
      A site where the structure has been positively determined to have been created by the impact of a meteoroid, asteroid, or comet with the Earth.  
    Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

  Enumerated\_Domain:  
    Enumerated\_Domain\_Value: Suspected impact structure  
    Enumerated\_Domain\_Value\_Definition:  
      A site where the structure may have been created by the impact of a meteoroid, asteroid, or comet with the Earth. Positive determination of the means of formation has not been made  
    Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Attribute:  
  Attribute\_Label: Id\_num  
  Attribute\_Definition:  
    The identification number for the impact structure. Suspected impact structures have a value of 0.  
  Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:  
  Range\_Domain:  
    Range\_Domain\_Minimum: 0  
    Range\_Domain\_Maximum: 17

Attribute\_Label: Name  
Attribute\_Definition: The name or location of the impact site.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Unrepresentable\_Domain:  
There is no predefined set of impact structure names or locations.

Attribute:  
Attribute\_Label: Latitude  
Attribute\_Definition:  
The latitude at the center of the impact site, in degrees and minutes.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Range\_Domain:  
Range\_Domain\_Minimum: 29°02'  
Range\_Domain\_Maximum: 47°36'

Attribute:  
Attribute\_Label: Longitude  
Attribute\_Definition:  
The longitude at the center of the impact site, in degrees and minutes.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Range\_Domain:  
Range\_Domain\_Minimum: 72°50'  
Range\_Domain\_Maximum: 111°01'

Attribute:  
Attribute\_Label: Diameter\_m  
Attribute\_Definition: The diameter of the impact site in miles.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Range\_Domain:  
Range\_Domain\_Minimum: 0.00  
Range\_Domain\_Maximum: 60.00

Attribute:  
Attribute\_Label: Age  
Attribute\_Definition:  
The age of the impact site in years. (Ma indicates a million years.  
For example, 100 Ma equals 100,000,000 years.)  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Unrepresentable\_Domain: There is no predefined set of ages.

Attribute:  
Attribute\_Label: Remarks  
Attribute\_Definition: The basis of site identification.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Unrepresentable\_Domain: There is no predefined set of remarks.

Detailed\_Description:  
Entity\_Type:  
Entity\_Type\_Label:  
Geologic unit (described by geolgym075.pat or geolgyp.dbf)  
Entity\_Type\_Definition:  
Rock and material that lies at or near the land surface, but not surficial materials such as soils, alluvium, and glacial deposits. The units are defined by sedimentary, volcanic, plutonic, or metamorphic rock types and by their geologic age. The Text attribute is included to provide a method for generating the appropriate map symbols for display and publication purposes.

Entity\_Type\_Definition\_Source: U.S. Geological Survey  
Attribute:  
Attribute\_Label: Shape  
Attribute\_Definition: The representation of the entity in the data.  
Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Enumerated\_Domain:  
Enumerated\_Domain\_Value: Polygon  
Enumerated\_Domain\_Value\_Definition: 2-dimensional element.  
Enumerated\_Domain\_Value\_Definition\_Source: ESRI GIS software

Attribute:  
Attribute\_Label: Area

Attribute\_Definition:

The size of the shape in square coverage units. In the distributed file, coverage units represent square decimal degrees.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 0.00000

Range\_Domain\_Maximum: 60.48843

Attribute:

Attribute\_Label: Perimeter

Attribute\_Definition:

The perimeter of shape in coverage units. In the distributed file, coverage units represent decimal degrees.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 0.00543

Range\_Domain\_Maximum: 204.79648

Attribute:

Attribute\_Label: Geolgyp075# or Geolgym075

Attribute\_Definition: Internal feature number.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 2

Range\_Domain\_Maximum: 2788

Attribute:

Attribute\_Label: Geolgyp075-id or Geolgymc\_i

Attribute\_Definition: User-assigned feature number.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 0

Range\_Domain\_Maximum: 3500

Attribute:

Attribute\_Label: Geology

Attribute\_Definition: The standard geologic symbol for the rock type.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: (See table under Text)

Enumerated\_Domain\_Value\_Definition: (See table under Text)

Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Attribute:

Attribute\_Label: Mapunit\_sy

Attribute\_Definition: A letter code representing the geology.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: (See table under Text)

Enumerated\_Domain\_Value\_Definition: (See table under Text)

Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Attribute:

Attribute\_Label: Text

Attribute\_Definition:

The value recognized by the program GSMCAD and used to create the special font for geologic symbols, e.g. %217 represents the geologic symbol for mesozoic. Because standard fonts available in ArcInfo do not have the special symbols used for geologic time periods, the symbols were created in GSMCAD and exported as arcs.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: (See table below)

Enumerated\_Domain\_Value\_Definition:

The values for Text are listed below, along with the associated values for the Mapunit\_sy attribute and the values for the Geology attribute.

>

>MAPUNIT\_SY TEXT GEOLOGY

>-----

>Q Q Quaternary deposits

>nT nT Neogene sedimentary rocks  
 >pgT pgT Paleogene sedimentary rocks  
 >KT KT Cretaceous and Tertiary sedimentary rocks  
 >Mz %217 Mesozoic sedimentary rocks  
 >IMz I%217 Lower Mesozoic (Triassic and Jurassic)  
 > sedimentary rocks  
 >uPz u%216 Upper Paleozoic (Pennsylvanian and  
     Permian) sedimentary rocks  
 >PzMz %216%217 Paleozoic and Mesozoic sedimentary rocks  
 >mPz m%216 Middle Paleozoic (Silurian, Devonian, and  
     Mississippian) sedimentary rocks  
 >Pz %216 Paleozoic sedimentary rocks  
 >IPz I%216 Lower Paleozoic (Cambrian and Ordovician)  
     sedimentary rocks  
 >ZPz Z%216 Late Proterozoic and lower Paleozoic  
     sedimentary rocks  
 >Z Z Late Proterozoic sedimentary rocks  
 >Y Y Middle Proterozoic sedimentary rocks  
 >P\_ %215 Proterozoic sedimentary rocks  
 >X X Early Proterozoic sedimentary rocks  
 >A A Archean sedimentary rocks  
 >K K Cretaceous sedimentary rocks  
 >Qv Qv Quaternary volcanic rocks  
 >nTv nTv Neogene volcanic rocks  
 >pgTv pgTv Paleogene volcanic rocks  
 >Kv Kv Cretaceous volcanic rocks  
 >Mzv %217v Mesozoic volcanic rocks  
 >IMzv I%217v Lower Mesozoic (Triassic and Jurassic)  
     volcanic rocks  
 >PzMzv %216%217v Paleozoic and Mesozoic volcanic rocks  
 >mPzv m%216v Middle Paleozoic volcanic rocks  
 >IPzv I%216v Lower Paleozoic volcanic rocks  
 >ZPzv Z%216v Late Proterozoic and lower  
     Paleozoic volcanic rocks  
 >Zv Zv Late Proterozoic volcanic rocks  
 >Yv Yv Middle Proterozoic volcanic rocks  
 >Xv Xv Early Proterozoic volcanic rocks  
 >pgTg pgTg Paleogene granitic rocks  
 >pgTi pgTi Paleogene intermediate rocks  
 >pgTm pgTm Paleogene mafic rocks  
 >KTg KTg Cretaceous and Tertiary granitic rocks  
 >Kg Kg Cretaceous granitic rocks  
 >Mzg %217g Mesozoic granitic rocks  
 >IMzg I%217g Lower Mesozoic granitic rocks  
 >IMzm I%217m Lower Mesozoic mafic rocks  
 >IMzu I%217u Lower Mesozoic ultramafic rocks  
 >uPzg u%216g Upper Paleozoic granitic rocks  
 >mPzg m%216g Middle Paleozoic granitic rocks  
 >mPzm m%216m Middle Paleozoic mafic rocks  
 >IPzg I%216g Lower Paleozoic granitic rocks  
 >ZPzg Z%216g Late Proterozoic and lower Paleozoic  
     granitic rocks  
 >ZPzm Z%216m Late Proterozoic and lower Paleozoic  
     mafic rocks  
 >P\_g %215g Proterozoic granitic rocks  
 >Yg Yg Middle Proterozoic granitic rocks  
 >Ym Ym Middle Proterozoic mafic rocks  
 >Ya Ya Middle Proterozoic anorthositic rocks  
 >Xg Xg Early Proterozoic granitic rocks  
 >Xm Xm Early Proterozoic mafic rocks  
 >Ag Ag Archean granitic rocks  
 >Zg Zg Late Proterozoic granitic rocks  
 >n n Gneiss, age uncertain  
 >ZPzn Z%216n Late Proterozoic and lower Paleozoic gneiss  
 >Yn Yn Middle Proterozoic gneiss  
 >Xn Xn Early Proterozoic gneiss  
 >An An Archean gneiss  
 >PzMzm %216%217m Paleozoic and Mesozoic mafic rocks  
 >Tv Tv Tertiary volcanic rocks  
 >nTg nTg Neogene granitic rocks  
 >H2o H2o Water body  
 >

Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Attribute:

Attribute\_Label: Geoshade

Attribute\_Definition:

The shade pattern number from the ARCINFO shadeset geoshade.shd.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 0

Range\_Domain\_Maximum: 231

Attribute:

Attribute\_Label: Red

Attribute\_Definition: Value of red used to produce map unit colors.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 0

Range\_Domain\_Maximum: 255

Attribute:

Attribute\_Label: Green

Attribute\_Definition: Value of green used to produce map unit colors.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 0

Range\_Domain\_Maximum: 255

Attribute:

Attribute\_Label: Blue

Attribute\_Definition: Value of blue used to produce map unit colors.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 0

Range\_Domain\_Maximum: 255

Detailed\_Description:

Entity\_Type:

Entity\_Type\_Label:

Rock or geologic deposit boundary line (described by geolgy075.aat or  
geolgyl.dbf)

Entity\_Type\_Definition: Line separating different geologic units.

Entity\_Type\_Definition\_Source: U.S. Geological Survey

Attribute:

Attribute\_Label: Shape

Attribute\_Definition: The representation of the entity in the data.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Enumerated\_Domain:

Enumerated\_Domain\_Value: Polyline

Enumerated\_Domain\_Value\_Definition:

1-dimensional element that may or may not surround a 2-dimensional  
element.

Enumerated\_Domain\_Value\_Definition\_Source: ESRI GIS software

Attribute:

Attribute\_Label: Fnode#

Attribute\_Definition: Internal sequence number of the from-node.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 1

Range\_Domain\_Maximum: 9432

Attribute:

Attribute\_Label: Tnode#

Attribute\_Definition: Internal sequence number of the to-node.

Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Range\_Domain:

Range\_Domain\_Minimum: 2

Range\_Domain\_Maximum: 9432

Attribute:

Attribute\_Label: Lpoly#

Attribute\_Definition: Internal sequence number of the left polygon.

Attribute\_Definition\_Source: U.S. Geological Survey  
Attribute\_Domain\_Values:  
Range\_Domain:  
  Range\_Domain\_Minimum: 1  
  Range\_Domain\_Maximum: 2778

Attribute:  
  Attribute\_Label: Rpoly#  
  Attribute\_Definition: Internal sequence number of the right polygon.  
  Attribute\_Definition\_Source: U.S. Geological Survey  
  Attribute\_Domain\_Values:  
    Range\_Domain:  
      Range\_Domain\_Minimum: 1  
      Range\_Domain\_Maximum: 2768

Attribute:  
  Attribute\_Label: Length  
  Attribute\_Definition:  
    The length of the line in coverage units. In the distributed file,  
    coverage units represent decimal degrees.  
  Attribute\_Definition\_Source: U.S. Geological Survey  
  Attribute\_Domain\_Values:  
    Range\_Domain:  
      Range\_Domain\_Minimum: 0.00005  
      Range\_Domain\_Maximum: 16.18611

Attribute:  
  Attribute\_Label: Geolgyl075# or Geolgym075  
  Attribute\_Definition: Internal feature number.  
  Attribute\_Definition\_Source: U.S. Geological Survey  
  Attribute\_Domain\_Values:  
    Range\_Domain:  
      Range\_Domain\_Minimum: 1  
      Range\_Domain\_Maximum: 10599

Attribute:  
  Attribute\_Label: Geolgyl075-id or Geolgym\_id  
  Attribute\_Definition: User-assigned feature number.  
  Attribute\_Definition\_Source: U.S. Geological Survey  
  Attribute\_Domain\_Values:  
    Range\_Domain:  
      Range\_Domain\_Minimum: 3  
      Range\_Domain\_Maximum: 49939

Attribute:  
  Attribute\_Label: Code  
  Attribute\_Definition: The type of geologic boundary.  
  Attribute\_Definition\_Source: U.S. Geological Survey  
  Attribute\_Domain\_Values:  
    Enumerated\_Domain:  
      Enumerated\_Domain\_Value: 11  
      Enumerated\_Domain\_Value\_Definition: Contact  
      Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

    Enumerated\_Domain:  
      Enumerated\_Domain\_Value: 12  
      Enumerated\_Domain\_Value\_Definition: Fault (copied in fault file)  
      Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

    Enumerated\_Domain:  
      Enumerated\_Domain\_Value: 13  
      Enumerated\_Domain\_Value\_Definition:  
        Thrust fault (copied in fault file)  
      Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

    Enumerated\_Domain:  
      Enumerated\_Domain\_Value: 14  
      Enumerated\_Domain\_Value\_Definition:  
        Normal fault (copied in fault file)  
      Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

    Enumerated\_Domain:  
      Enumerated\_Domain\_Value: 16  
      Enumerated\_Domain\_Value\_Definition:  
        Low angle detachment fault (copied in fault file)  
      Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

    Enumerated\_Domain:  
      Enumerated\_Domain\_Value: 21  
      Enumerated\_Domain\_Value\_Definition: Shoreline  
      Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

    Enumerated\_Domain:

Enumerated\_Domain\_Value: 23  
Enumerated\_Domain\_Value\_Definition: International boundary  
Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Attribute:

Attribute\_Label: Text  
Attribute\_Definition: The type of geologic boundary.  
Attribute\_Definition\_Source: U.S. Geological Survey

Attribute\_Domain\_Values:

Enumerated\_Domain:  
  Enumerated\_Domain\_Value: Contact  
  Enumerated\_Domain\_Value\_Definition:  
    The surface where two different kinds of rocks meet.  
  Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Enumerated\_Domain:

  Enumerated\_Domain\_Value: Fault  
  Enumerated\_Domain\_Value\_Definition:  
    A fault is a fracture or fracture zone in the Earth's crust along  
    which rocks on one side have moved significantly with respect to  
    those on the other side. This data set includes both the faults and  
    the line decorations.  
  Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Enumerated\_Domain:

  Enumerated\_Domain\_Value: Thrust fault  
  Enumerated\_Domain\_Value\_Definition:  
    A thrust fault is a flat or gently inclined fault (less than 45  
    degrees) along which the rocks above have moved relative to the  
    rocks below.  
  Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Enumerated\_Domain:

  Enumerated\_Domain\_Value: Normal fault  
  Enumerated\_Domain\_Value\_Definition:  
    A normal fault is a steeply inclined fault (usually more than 45  
    degrees) where rocks above the fault have moved down relative to  
    those below the fault.  
  Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Enumerated\_Domain:

  Enumerated\_Domain\_Value:  
    Low angle detachment fault  
  Enumerated\_Domain\_Value\_Definition:  
    A large, shallowly-inclined normal fault formed during extension of  
    the Earth's crust.  
  Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Enumerated\_Domain:

  Enumerated\_Domain\_Value: Shoreline  
  Enumerated\_Domain\_Value\_Definition:  
    The line where geologic map units are terminated by a body of water.  
  Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

Enumerated\_Domain:

  Enumerated\_Domain\_Value: International boundary  
  Enumerated\_Domain\_Value\_Definition:  
    The line where geologic map units are terminated by an international  
    boundary.  
  Enumerated\_Domain\_Value\_Definition\_Source: U.S. Geological Survey

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